6/18/97-00585

MEETING SUMMARY

CH2MHILL

ATTENDEES

Mr. Scott Park/LANTDIV
Ms. Kelly Greaser/Little Creek
Ms. Maureen Connors/Little Creek
Mr. Scott MacEwen/CH2M HILL
Mr. Richard Deegan /Sierra Club
Mr. Robert Weld/VADEQ Federal Facilities
Ms. Janice Ellia/Little Creek Environmental Director
Mr. Newton Berliner/Baylake Pines Civic League
CDR Steve Lord/Base Civil Engineer
Mr. Bob Stroud/USEPA Region III RPM
Mr. Jeff Waller/City of Virginia Beach
Mr. Robert Dean/Clean the Bay Day
Ms. June Barrett-McDaniels/Aquarius Engineering

FROM: Anne Estabrook/CH2M HILL

DATE: June 18, 1997

The Remediation Advisory Board (RAB) Meeting was held on June 17, 1997 in the third floor conference room at the Bachelor Officer's Quarters (BOQ) at Naval Amphibious Base (NAB) Little Creek. The meeting began at 1:00 pm.

Welcome by CDR Lord, Base Civil Engineer.

At NAB Little Creek, the environmental division is within Base Civil Engineering (BCE).

In 1997, Little Creek's environmental division received a chemical preparedness award from USEPA Region III, plus awards from the Chief of Naval Operations (CNO),

NAB is committed to the environment and cleaning up past practices, and sharing activities with public. The more community participation, the better.

CDR Lord shared some background on RAB process, pointing out that this meeting is the culmination of previous community involvement.

He feels the base's environmental success is community's environmental success.

He asked attendees to listen to all input with open minds, and emphasized that questions are welcome.

Introduction by Kelly Greaser

Everyone in room introduced themselves (see list of attendees, above),

Ms. Greaser encouraged everyone to sign in and to leave their address if interested in receiving the meeting minutes.

She described the three handouts available: overheads & agenda, list of acronyms, package of maps with IR sites to be discussed. Various documents to be discussed today are located on back table.

View Video: Installation Restoration - A Navy Pledge to the Future

Phases of IR:

- Preliminary Assessment - possible sites identified based on historical information
- Site Inspection - physical inspection
- Remedial Investigation

- Feasibility Study
- Remedial Design
- Remedial Action
- Closeout - made in conjunction with regulators and local community.

The Navy solicits community involvement during all phases of IR program. The community is kept informed and public participation is sought. The RAB is community representative.

Emphasis placed on Innovative Management Approaches, concurrent phases of process, teaming, and seeking consensus.

Kelly Greaser - Site 16 NFRAP Status

This site is transformer struck by lightning that led to a spill of approximately 5 gallons of PCB-contaminated oil.

The PCB Removal Action was completed in July 1995.

A Final Closeout Report was submitted in September, 1996.

The RAB was notified of the closeout, the administrative record was updated, and no further action is planned.

Site 7, Amphibious Base Landfill

This site operated from 1962-1979. It operated as both a trench and an area landfill. Some of the waste in the landfill is below the groundwater table because of the trench filling method used.

The site is about 38 acres in size, containing an estimated 1.2 million cubic yards of waste, primarily municipal solid waste, with probably very little "hazardous waste".

The site was officially closed by the Department of Health in 1982.

Historical aerial photos show that primary landfilling activity was on the western half of the site. Only sewage sludge and dredge material was placed on the east side of site.

Previous sampling at the site consisted of:

- Round 1 verification testing, 1986
- Interim Remedial Investigation, 1991
- RI/FS, 1994

According to the baseline risk assessment, the only current risk is to child and adult trespassers using surface water as drinking water. Future risk to child and adult residents exists from surface soil, groundwater and surface water if used as drinking water.

The purpose of the FS was to evaluate different remedial action alternatives.

Remedial Action Objectives (RAOs):

- Reduce risks from surface soil and groundwater
- Mitigate migration of contamination from groundwater to surface water
- Mitigate risks attributable to Site 7
- Restoration of aquifer to drinking water quality not an objective.

Alternatives:

1. No Further Action - $25,000
2. Institutional Controls - $1.4 million
3. HDPE/Clay Cap - $5.9 million
4. Cap and Slurry Wall - $14 million
5. Selective removal and treatment of hot spots - $43 million

Each alternative was evaluated using nine evaluation criteria.

Discussion of FS Alternatives

Alternatives 1, 4, and 5 were eliminated. Alternative 1 does not mitigate risk, Alternative **4** is excessively costly for little reduction in risk. Alternative 5 was eliminated because hot spots have not really been identified at this site.

Evaluation of Alternative 2 and Alternative 3 were discussed in detail in response to a comment received during the public comment period,

1. **Alternative 2: Institutional Controls**

- Install 15,000 cy of fill/topsoil in open area
- Remove approximately 1,000 cy of debris
- Install new fence on south and east sides of site
- Post warning signs at site perimeter
- Reinforce access road crossing at canal
- Implement land use restrictions
- Continue long term groundwater monitoring

Ms. Greaser then summarized the evaluation of Alternative 2 by nine criteria.

2. **Alternative 3: HDPE/Clay cap**

- Install new fence on south & east sides
- Post warning signs
- Implement site use restrictions
- Continue semi-annual long-term monitoring

Ms. Greaser summarized the evaluation of Alternative 3 by the nine criteria.

Summary:

- Both alternatives reduce short and long-term risk to human health and the environment, and RAOs are met for both.
- Both meet action- and location-specific ***ARARs.*** Neither meets chemical-specific ARARs for groundwater within the site boundary, however this is not an objective . The intent of Executive Order (E.O.) 11990 (minimizing disturbance of wetlands) is not met by Alternative 3 because the cap will have to cover portions of the landfill that are considered emergent wetlands.
- Alternative 3 reduces infiltration more than Alternative 2, which would theoretically reduce leaching of contaminants from the vadose zone to the groundwater. However, risks associated with leaching to groundwater do not appear to be significant and any potential reduction in risk

does not appear to be justified by additional expense. Also, it is likely that some of the waste in the landfill is situated below the water table as a result of the manner in which it was filled (trench and backfill). In this case leaching of contaminants from the waste to the groundwater will occur even if a cap is constructed.

Questions

Bob Dean - Is there any methane at the landfill?

Kelly Greaser - Methane is not a priority pollutant. There are no indications that methane is a problem at the site.

Newton Berliner - Mentioned the methane generation problems at landfill with high organic content (tannery wastes) in Woburn, MA.

Scott MacEwen - Even if methane is being generated at the site, there is probably not much subsurface migration of methane because of canals on each side. If an HDPE cap is proposed, however, he would recommend soil gas study.

Jeff Waller - Why does the HDPE cap disturb the wetlands, but not the soil cover?

Kelly Greaser - The soil cover would only be installed in the central, open area, not in wetlands. To be effective, a geosynthetic cap would have to cover entire waste disposal area (including vegetated area).

eegan - This site is one of largest landfills on base, and also one of closest to residential areas. Are the state and city satisfied by selection of Alternative 2?

Kelly Greaser - While residential communities are nearby, they are to the south and groundwater flow is to the north

Robert Weld - Capping alternatives are evaluated based on the proposed future use of site. Site is not expected to be used in immediate future. State feels that Alternative 2 is protective, and doesn't feel that increased cost of Alternative 3 offers significant increase in protection.

Richard Deegan- How about the City?

Jeff Waller - The city's perspective is to comply with all environmental regulations, but not to act as a regulator. They will defer to VADEQ in this.

Robert Dean - What will happen to 1,000 cy of debris removed from site?

Kelly Greaser - The debris is mostly fairly innocuous - wood, metal, plastic, etc. Debris will be disposed of offsite, and some of it may be recyclable.

Robert Dean - What about other possible future uses of site? It seems like valuable real estate.

Janice Elia - The site is within the ESQEDR (explosive radius of the magazine to the northwest), which is another restriction to future use,

Robert Deegan - Stated that he accepts DEQ's analysis.

Site 7 Proposed Remedial Action Plan

Alternative 2 is the proposed remedial action.

This meeting is the close of the public comment period.

Draft Final Decision Document will be available for review after PRAP is finalized.

Questions

June Barrett McDaniels - Does Alternative 2 include revegetation?

Kelly Greaser - The alternative does include revegetation. The designer has been working with the Base's natural resources representative to select vegetation to establish habitats for animals.

Newton Berliner - What types of vegetation are being proposed? Ground covers or grasses?

Kelly Greaser - Grasses will be planted to provide best habitat for animals on site.

Break

Scott MacEwen - Site 7 Monitoring Plan

Draft final Monitoring Plan has been submitted, the final MP will be submitted after comments are received.

Monitoring is a component of all alternatives considered in FS.

MP Objectives:

- Part of institutional controls alternative
- Necessary because waste is left on site
- Semi-annually for 5 years
- Monitor discharges from site to groundwater, surface water and sediment and re-evaluate site-related risks after 3 years and 5 years.

A total of 13 monitoring points around landfill:

- Six groundwater monitoring wells. LC-GW3 is background well, also GW-1, GW-6, GW-7, GW-8, and GW-9. Analyze groundwater samples for VOCs, SVOCs, PCBs, total and dissolved metals.
- Seven surface water sampling locations. Two background locations, five downstream locations. Analyze for VOCs, SVOCs, PCBs, total and dissolved metals, and hardness.
- Sediment samples collected at same locations as surface water samples from depths of 0" to 6". Analyze for SVOCs PCBs, total metals, and TOC.

Each round of results will be compared to "trigger levels:'

Trigger levels were developed based on human health and environmental risk. If results exceed trigger levels, site conditions will be further evaluated.

Question

Newton Berliner - How are trigger levels set? Will there be a trigger level for each individual contaminant?

Scott MacEwen - Trigger levels will be calculated for each contaminant of concern. Calculation takes into account potential cumulative effect of all contaminants.

Site 7 Remedial Design

Design was split into two contracts for most economical implementation:

- RAC - debris removal and fence installation (activities which involve some uncertainty)
- Fixed price contract - soil cover, gravel access road other well defined activities

Preliminary survey of site to determine existing cover thickness:

- hand auger holes in cover
- to 12" in central area
- to 24" cover with 2" topsoil in west area
- No waste in east area.

Also did topographic survey

RAC Contract (Debris Removal):

- Estimated 1,000 cy of mixed debris
- Debris will be removed/disposed of offsite, recycled if possible
- Existing fence on south side of the site will be upgraded. New fence will be added along east side of site.

Fixed Price Contract (Soil Cover Improvements)

- Install temporary sediment and erosion control measures
- Place 12" of cover and 6" of topsoil on central area
- Place 4" to 6" of topsoil on rest of site
- Improve access road canal crossing
- Improve gravel access road across site
- Post warning signs

Questions

Robert Dean - What is total allocation of funds for this project? Isn't 3 years of monitoring necessary?

Scott Park - Currently $750,000 is allocated. Budget is in place for 10 years of monitoring. Five years will be completed and then the monitoring program will be reevaluated. Each round of sampling will cost about $50,000 to $60,000.

Robert Dean - Does this cost include installation of wells?

Scott MacEwen - Only one well will be installed. Two existing wells will be recased due to salt water damage. Thirty years of monitoring will probably be required, but monitoring program may be changed after 5-year reevaluation.

Schedule: RAC construction will begin after the Decision Document is finalized. The fixed priced contract construction will begin in FY 1998.

Site 5 and 11 GW Monitoring Report Status

Site 5 - Motor Oil Disposal Area

Site 11 - School of music plating shop

Two rounds of sampling were done in May 1996 and December 1996. The Draft Final monitoring report was submitted in June 1997.

Site 5 History

Up to **50,000** gallons of used motor oil was generated at site. Preliminary Site Inspection was done in 1991 and Site Inspection was done in 1993.

Low concentrations of TPH detected in soil, 1,1-DCA detected in GW ranging from 23 to 76 µg/l.

No unacceptable risk is posed by soil or groundwater,

Monitoring objective is to confirm no-risk determination in groundwater, and to evaluate migration of 1,1-DCA.

Findings:

- 1,1-DCA and chloroethane detected at similar levels to PSI and SI. Chloroethane is possibly break down product of 1,1-DCA
- Confirmed no-risk
- Reports of onsite disposal of large quantities of oil were overstated
- Recommend no further action ,

Site 11 History

Shop operated from 1964 to 1974. Plating wastes were disposed of in drain to underground neutralization tank.

Previous investigations found metals in tank and in soil around tank at levels representing some future risk.

Trichloroethylene (TCE) detected in one of three groundwater monitoring wells

Tank, piping, and soil were removed in 1995. No chlorinated hydrocarbons found in materials removed.

Groundwater monitoring plan objectives were to determine if tank removal reduced risk and to confirm no-risk determination.

Findings:

TCE found in LC11-GW1 (same well as before), no contamination in other wells. Concluded that removal action was successful. Also determined that groundwater flow direction varies at different times of year depending on groundwater elevation.

TCE contamination in LC11-GW1 decreasing but still above MCLs .

Recommend further delineation of TCE plume by geoprobe and installation of downgradient perimeter monitoring points .

Break

Scott Park - Sites 9 & 10 Final Proposed Remedial Action Plan

Site 9 - Driving Range Landfill operated from 1950-1956, 6 acres.

Site 10 - Sewage Treatment Plant Landfill, operated from 1941 to 1968, 18 acres

At each site approximately 40,000 cy of non-hazardous municipal wastes

Three rounds of groundwater sampling, and one round surface soil sampling have been completed.

There is no current risk at either site

Proposed remedy is groundwater monitoring, institutional controls

Decision document outlines selected remedy and demonstrates compliance with NCP

Institutional controls will include:

- Warning signs
- Land use restrictions in Base Master Plan
- Base operational requirements (notification and concurrence of base environmental will be required for intrusive activities)
- Real estate records will be revised

Sites 5, 9, 10, and 11 GWMP will be finalized and distributed shortly.

Kelly Greaser - Update on Other IR Sites:

Site 11 School of Music

A screening sampling event is proposed to determine the extent of TCE contamination.

Site 12 Exchange Laundry Disposal Area

Sampling in August and September, 1995 indicated that natural attenuation may be appropriate for this site. A Phase 2 risk assessment is proposed to evaluate natural attenuation.

Site 13 - PCP Dip Tank and Wash Rack

Sampling in August and September, 1995 indicated that the site is a PCP source area. A soil removal action will be evaluated. Groundwater will be considered later.

Site 5 - closeout pending concurrence

Site 7 - remedial action pending concurrence

Sites 9 and 10 - groundwater monitoring

Site 11 - screening sampling

Site 12 - natural attenuation sampling and risk assessment

Site 13 - soil removal action pending concurrence

Meeting adjourned at 4:15.